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ABSTRACT

In 1995, 17 graduate students at the University of Wisconsin attended a summer course titled Education 570: Integrating the Curriculum. This course was based on a constructivist view of knowledge development, and participating teachers represented a wide range of subject areas and grade levels. A study of participating teachers followed 16 teachers through the summer course and subsequent school year. This paper provides case studies of five of these teachers whose participation in the course was monitored through observations, surveys, interviews, and videotapings. Each case study begins with demographic and background information about the teachers, their experiences, and their preliminary beliefs about integration. Descriptions of their integration projects are provided, as are discussions of factors impeding or facilitating implementation of these projects. Questions discussed include: how do teachers define classroom integration?; do teachers change in their thinking about planning for instruction as a result of learning about constructivism and models of integration?; which model of integration did each teacher most embrace, and how was this model implemented in their classrooms?; and how do participants describe the impact of constructivist, integrated instruction on the teachers and students in their schools? (PB)

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Making Connections: Helping Teachers to Implement an Integrated Approach to Curriculum Within Their School Communities

by

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Introduction

In the summer of 1995, 17 graduate students attended a course titled Education 570: Integrating the Curriculum. The course was based on a constructivist view of knowledge development and explored many facets of integrating the curriculum. The teachers who participated in the course represented a diverse distribution of both subject and grade levels. For the purposes of this study, five of these students were observed, completed surveys, participated in interviews and were videotaped.

Objectives and Theoretical Framework

One of the mainstays of a democracy is the characteristic of embracing diversity. For learners to embrace diversity, they must understand that in the real world they are connected to others in a community through shared goals, experiences and knowledge. Yet, when children arrive at school, rather than working with peers and teachers to construct a shared and coherent understanding of their world, they are often faced with a fragmented approach to instruction and are expected to learn in isolation from others. If a major goal in a democratic society is to provide its children with an education that prepares them for informed participation as citizens, then the way they construct knowledge must allow for and promote the connections that exist between people and between the disciplines of study. This is a powerful justification for implementing an ***integrated approach*** to instruction, curriculum and learning.

An integrated approach to instruction, which helps children see learning as shared and meaningful, fits well within the context of current

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reform movements. Both call for teachers to place the child at the center of instruction and understand their classrooms in vastly different ways. Some principles common to restructuring efforts and integrated instruction are "critical and creative thinking, responsiveness to differences in learning styles, active participation on the part of the student in the learning process, relevancy of curriculum, and an understanding of concepts as interconnected in a world where knowledge can no longer be fragmented and compartmentalized" (Charbonneau and Reider, 1995).

The purpose of this study was to describe the efforts of sixteen preschool, elementary and secondary teachers to develop and implement constructivist, integrated instruction in their classrooms. This study followed the sixteen teachers through a four week summer course and the subsequent school year. The summer course was designed to give the teachers a grounding in constructivist learning theory, present them with models of integrated instruction and assist them in developing a constructivist, integrated approach to instruction in their own classrooms. Questions used to guide the study included: How do teachers define curriculum integration? Do teachers change in their thinking about planning for instruction as a result of learning about constructivism and models of integration? Which model of integration does each teacher embrace and choose to implement in his/her own classroom? How does each teacher describe the impact of constructivist, integrated instruction on the teachers and students within their school communities.

Introduction to Case Studies

The teachers who participated in this study held diverse views on both knowledge development and what they perceived integration of curriculum meant. These views clearly developed and changed as a result of participating in this course. The students (teachers) who are represented were selected from a pool of 16 of the teachers who volunteered to be a part of the study. They represent a wide variety of teaching backgrounds and levels of understanding of what integration of curriculum is. Each case study begins with demographic, background information about the teachers' experiences, their beliefs about integration both before and after the course, descriptions of their integration project, what the implementation of the project looked like and a discussion of the factors that impeded or facilitated the implementation.

Case Studies

Mark

Mark was a teacher with an incredible history of diverse experiences. He had been a teacher for 17 years in settings that ranged from his first year as a junior high math teacher and dorm parent in a private school to grades 4-6 in elementary classrooms to middle school reading and computer literacy to high school special education. He shared that he felt successful when students discover and use their own skills and knowledge while under his guidance, whereas his disappointments came when students were lost because of their life circumstances. Mark liked to involve students in Socratic discussion and give as much hands-on as possible. He felt that students would probably call him strict, fair, consistent, challenging, emotional, compassionate, and honest. His assessments of student learning included oral questioning, reviewing student products, and a few tests.

As Mark began the graduate course he described curriculum integration as taking a broad concept and developing a comprehensive understanding of it through students' application of various subject areas to the concept. He related his experience with it "In the past, I have done thematic teaching in the framework of social studies concepts. Examples are Science in the Middle Ages, Religious Beliefs in History." But as the course concluded, Mark had a deeper, more robust view:

> "I now view integration to be more subject infusion into thematic concepts but (it) also extends to creating learning opportunities using various learning styles and intelligences. The evolution has been an expansion of my thinking about integration from cognitive processes only, into areas of affective needs ... My model is based on ideas new to me, such as conceptual change, and seven intelligences, and has reinvigorated me to go to the classroom prepared to adventure where I have not been before with my students, empowered for leadership in their own education. This class has put theory and practical ideas forward to create plans to fulfill the goals we established for learners and teachers. Our goals were good ones, and now I have the practical knowledge necessary for creative, constructivist, integrated ways to reach these goals."

Mark's integration project centered on the theme of communities and

government. Thinking that he would be working with 7-12 grade emotionally disturbed students he felt that his past approach focused too much on behavioral modification aspects. Recognizing the need that these students often have to feel connected to a social structure ("most come from dysfunctional family settings") he created a unit plan to help students learn what communities and governments are, what kinds there are, how they function and a sequential understanding of how students fit into them. He placed a high degree of importance on the development of an "appropriate" awareness of social skills by looking at things like the social communities and behavior of bees and the organ systems of the human body. His project included learning activities dealing with concepts such as justice systems and forms of government, family structures, how to change your role in a dysfunctional social system, consensus building and trust. Mark recognized the all encompassing nature of his project and was careful to identify several key concepts he planned to explore with his students.

Mark's plan to implement his integration project on communities in a 7-12 special education setting never came to fruition. Mark was hired by a small rural school district to work with learning disabled students. Therefore there was a "big difference" between what he planned to do with his project and what he actually ended up doing. For starters, he wasn't able to focus in some of the directions he wanted to. He actually started teaching his unit farther towards the end than anticipated. However, he was confident that he would be able to modify his unit plan in a way that would still make it useful for his new job. He recognized that the students he was now working with tended to be a little self focused but very sensitive to injustice, whether perceived, real or myth. Instead of implementing his project in its entirety he "still wanted to focus on the community and government because it's important for that when you're in the beginning with a new teacher to set the rules up for the classroom ... And one of the things I really wanted to do was to create a safe place to just brainstorm, throw ideas out without having to ridicule. So, I did have to set some ground rules, talk about ground rules, no making fun of what someone says...". He reported that students were able to make the connection between what they did in their classroom and how communities set up rules and deal with relationships. Mark recognized that implementing his integrated unit project improved motivation among his students because they got to choose direction.

Mark felt that if he had been able to implement his project as planned he would have had complete support from his administration,

colleagues and parents. He felt that any time students learning is more connected to the real world, everyone benefits. He knew that the structure of the class he was in charge of working with severely limited his ability to follow some of the directions he had wanted to pursue.

Mark expressed the following support for how this course on integrating the curriculum impacted his thinking about teaching. It "gave me another model to look at for teaching, which you weren't really talking about curriculum anymore, integration with the model that you're using in that class opens up some ideas for my future. Cooperatively teaching with other faculty members, like maybe even combining grade levels together."

Barb and Cindy

Barb and Cindy are a unique pair of second grade elementary teachers. Each teacher had more than fifteen years of experience teaching at the elementary level and for the past six years they job-shared, each teaching a half day. Barb's primary responsibility focused on the planning and teaching of Language Arts; reading, writing, and spelling while using social studies and science as themes for choosing literature. Cindy's primary responsibility focused on the other areas of the curriculum. They taught in a blue collar, mid sized school district that tended to be ultra conservative.

Their style of teaching was self described as "child-centered, quiet but firm, and respectful of individual strengths. Children learn by doing; kids work independently, in cooperative groups of 2-4, and we do lots of whole class modeling. Student assessment is based on performance. Can students demonstrate particular skills? We also do individual assessment (running records)."

Barb began the course by defining curriculum integration as "The best learning happens when it is real and authentic and means the topic is of interest to the students, the material is appropriate to their needs, and the "learning" includes math, reading, writing, speaking, listening (all areas) while investigating the topic."

Cindy and Barb's classroom was based on science and social studies topics. At the beginning of the course, Barb reported that she wanted to create a document that integrated all the literature they used in their classroom that was appropriate for their topics, the objectives they would like to meet, and additional information that was covered.

At the end of the course Barb reported that "Integration occurs when learning materials from all content areas are used to meet the needs of

learning styles present in a group of children. Social skills are as necessary as 'content acquisition'. As a teacher, it is my goal to provide those opportunities for all students to use their total environment (print, computer, math manipulations, tape recorders, a grassy area, even a mud-covered shoe) to build or construct knowledge and understanding. I may have materials and activities fit together in a logical manner, but if I don't have the mind set that children need to put together their own understanding, I am still not following the constructivist concept." Barb recognized the "need to allow more time for kids to make connections and build meaning. I hope to improve at using what they already know to determine my next step. I also hope to allow more opportunities for the kids to let me know how they think I'm doing." The advantage of integration, in Barb's view, is that learning is not fragmented; learning is real and authentic. As an example from her classroom, she described how they would use Eric Carle's book, The Very Hungry Caterpillar. Students could easily read the book and after discussing the butterfly life cycle, they would reread the book. She related that a student always "points out that Carle incorrectly used the word cocoon, instead of chrysalis. This comment shows kids are expecting an author to be accurate. This demonstrates a level of interaction with what they read. In a transmission setting, I would have been satisfied with accurate word identification of the story; now the students choose what action to take after finding this 'error', rewrite the book inserting the word chrysalis, write a letter to Eric Carle, or make a new story about the life cycle of another animal. Kids are enthused and excited--learning is a joy."

Barb recognized that some of the disadvantages to integrating curriculum include the need for money to buy resources and pay for curriculum planning time and a lot of extra time for good planning.

Cindy, on the other hand, described how her own views on integration had developed and changed throughout the course of the summer:

> "Our second grade team has been integrating our curriculum for several years. We began the process by beginning to correlate literature with our science and social studies 'themes' based on objectives from district curriculum guides. As this literature base began to grow, we found a need to organize these materials. As we began to include CD ROM's, discs, books, and other technology we found ourselves unable to recall all materials that were available for each theme. Thus the idea of a database developed. Having one document that included district objectives, a database of literature and technology began as our project idea. We also

> expanded information on the database. As the class progressed, our project grew into the 'binder approach' which included all of the above, as well as a Gardner Intelligence map, a content webbing map, and unit project ideas. I have decided to try to continue this project in the future with mathematics integration. I have found it to be most beneficial to have knowledge of the theory that supports our project and our teaching. The parent letter included in our project and our teaching ... explains this statement."

These statements illustrate a crystallization of their original views on integration, as well as a more holistic understanding of the ways they could implement what they had learned. Simply organizing the literature they had collected over the past six years was no longer an appropriate goal for them to achieve. Now they truly desired to deal with the deeper issues addressing student learning needs and the integration of objectives from curriculum guides. The inclusion of Gardner's Multiple Intelligence applications and content webs demonstrates a much more mature and informed approach to integrating their curriculum.

The integrated project that Cindy and Barb created as an outcome of the summer course focused on the development of a document that explained their curriculum objectives in all content areas and how to integrate all those areas together. They focused mostly on science and social studies. Literature gathered over the past six years was cross-referenced with the different subject areas, when it was appropriate. They also created a Gardner's intelligence map to correlate with the units. Developing a binder that organized all this information and was more than a simple listing of authors and titles was their goal. They used district curriculum documents to identify important learning goals and cross referenced unit themes with objectives, trade books and self assessed readability levels. This highly integrated, organizational project was designed to include appropriate lesson plans for each unit and minimize preparation time:

> "This is what we've started - it's a pictorial example of what the pioneer unit looks like. That was one complete unit and this (another binder) is the start of four others. We will continue to build and this is the way we will start all of them. We'll include a Gardner's Intelligence Map, a list of objectives and then a grid of literature. By doing this it will save us so much time in planning and picking out activities that we want to do".

In addition to the integrated binder project, they created a letter to parents of their students that described in layman's terms the theoretical basis for the integration of curriculum in their classroom. A practical benefit of implementing their integration project would mean that the list of materials and information would be available at their fingertips. Also, a brief glance at the unit binders would refresh their memory concerning objectives.

As Cindy and Barb implemented their integration project throughout the academic year they simply used the binders they created for the different units in their curriculum. They were pleased with the increased accessibility to the resources needed to teach each unit and the subsequent decrease of preparation time. They also felt that by employing the multiple intelligences they were better prepared to meet the different needs of various learners while increasing the opportunities for self directed learning. They recognized the need to continue developing additional units that could be used at the second grade level and felt broadening the focus from science and social studies into other subject areas would make the units even more integrated in nature.

One of the factors Cindy and Barb recognized as impeding the implementation of their project and future developments was the lack of a detailed curriculum guide adopted by the district. However, they did enjoy the ability to make their own choices in curricular decisions. They praised their principal as being very supportive of their activities and were proud to see other teachers following in their footsteps as colleagues recognized the usefulness of their project. They felt the lack of interest exhibited by parents concerning the integrated nature of their teaching was disheartening but did not squelch their desire to continue in the same direction. The integrated nature of the activities they selected in their units "really peaked the students' interest in learning!". Another advantage to their approach was the connectedness of the learning experiences. The self motivating nature of the activities truly resulted in developing an excitement for learning in students that had not been there before.

Mary

Mary had five year's worth of teaching experience in special education classrooms. She had spent two years working with cognitively, emotionally, and learning disabled students in fourth through sixth grades, and three years teaching mildly to moderately cognitively disabled

students in grades four through eight. About her experience working as a special education teacher, Mary gave a simple and emphatic statement, "I love it!" Not surprisingly, Mary described herself as "enthusiastic, energetic, active and positive" and said that she favored "hands-on, active learning." At the beginning of the summer, Mary defined curriculum integration as "the meshing of multiple subject areas into a lesson or unit" and said that she had not previously done any thematic or integrated teaching in her classroom.

Mary applied her beginning definition of integration literally to the teaching unit she developed on oceans as her final project. She developed a series of lessons around the theme of oceans and worked to incorporate reading, language arts, science, social studies and art skills and concepts into the unit. Some examples of the kinds of activities Mary planned were showing a video of Jacques Cousteau to highlight the underwater experience, providing a wide variety of books about the ocean for students to read, having students generate a vocabulary list of ocean words, playing memory games with flash cards of different fish or ocean words and definitions, asking students to write and illustrate ocean stories, using goldfish crackers as math manipulative and teaching students about pollution and ocean related employment. Mary shared that her peers in the summer course were instrumental in helping her think about her unit and providing lesson ideas.

In addition to the value of feedback from others in the class, Mary said the area of her thinking most impacted by the course was assessment. She described her insight about assessment in this way,

> "I am very excited about the assessment part of it. Being back at the university this summer I found that it is so nice to have reinforcement and feedback. I don't get it very often in the classroom. I felt embarrassed that I wasn't looking to the students for more. Why couldn't I trust them?"

Due to her expanding understanding of the importance of assessment in classroom instruction, Mary said that it was going to play a major role during the implementation of her project. For the ocean unit, Mary developed evaluation forms to assess what the students had learned during the unit activities, a student assessment for the field trip she planned to include and a behavior checklist for students. Mary also developed evolution surveys for students to assess their own learning and to assess her teaching. Mary said she had never asked students to assess

her teaching before, but thought it would be extremely helpful. Mary's expanded view of assessment may help to explain why her definition of integration at the end of the course was quite similar to the one given in the beginning, but which she said "has evolved in terms of the complexity and the various faces that it involves."

Mary described herself as somewhat disappointed about the implementation of her integrated project when she was interviewed six months later. Although as she talked, it sounded as if Mary was able to cover many of the activities she had planned, she said it still did not turn out the way she had hoped. Some of the activities she was able to complete were decorating the inside of a refrigerator box with an ocean scene and having students sit inside to develop story ideas, using goldfish crackers for math and science activities, teaching some graphing skills related to the ocean, and having students write a report on an ocean animal and present it to the rest of the class. When pushed to explain why she was disappointed with the ocean unit as it was actually implemented in her classroom, Mary stated,

> "it really became burdensome to us after a while on top of all the other work requirements. And I could see the benefit [of teaching the ocean unit], but so often I found my students were missing out on some of the functional skills. I mean, research is good, but what's more beneficial, what we found for my students, is if they can look over a schedule and read it and communicate it; look over a grocery list and buy the items; follow written directions to prepare food items. Those things are a little more functional for my students."

Because of the need she felt her students had for these functional skills, Mary said her frustration level grew as the unit progressed and she saw that the students weren't going to be able to complete many of the unit activities that she had hoped they would.

The competing demands of teaching the functional skills Mary felt students needed and conducting the ocean activities that she wanted students to complete was just one of the factors that Mary said hindered the successful implementation of her integrated project. Other factors she mentioned were the wide range of grade levels and abilities of her students, the difficulty of scheduling a common time for all of her students to complete the ocean activities, general education teachers in the school who would forget to send students at the scheduled time or change the schedule without informing her, and planning the ocean unit for the beginning of the year.

Of all the factors that Mary mentioned, she said the biggest impediment was the last item mentioned, the timing of the project. Mary said she originally thought the ocean unit would be an exciting way to begin the school year, but quickly realized that her students needed to become familiar with classroom routines and learn more of the necessary functional skills before they were ready to explore a topic like oceans. Mary said she did want to try teaching another integrated unit, but she thought that January or February might be a better time in the school year.

One last important change Mary said she would make in any integrated unit was revealed in the following statement:

> "After I initially started the ocean project, I kind of wished I had gone with lakes because I wished it would have been something that was nearby that we could have actually experienced. We always take a fishing trip during the course of the school year with our outdoor education program. Once after I had finished it I thought, 'Gees, what was I thinking, I really should have done lakes. It would have been more applicable to the area, but you know, oceans was a little more fun to me."

Ben

Ben had the least amount of teaching experience of the five teachers studied. He had spent two years teaching middle school math and one year teaching high school math, including Algebra I and II and Geometry. Ben described himself as a "mixer" who liked to vary classroom activities. He said at the beginning of the class that he had not experimented with curriculum integration before and defined integration as the "intermixing of a variety of subjects in order to better understand all." Ben entered the class especially motivated to learn about curriculum integration because his school district had recently purchased a new math textbook series that emphasized the integration of math with other school subjects.

For his curriculum project, Ben developed an integrated unit focused on the national debt. Ben explained during the presentation of his project that he wanted to make the national debt more relevant to his students by starting with a topic they would have to deal with in their own lives, which is personal debt. Ben said he would introduce personal debt by talking about car loans. Ben defended car loans as a starting point by explaining,

> "Everyone owns a car, most people own more than one car after [they] get married and things, so it's something that [they're] going to run into down the road."

From a discussion of car loans, Ben said he would move to interest rates, then to living expenses and budgeting, which he said was a "major contributor to the national debt," then to the state budget, and finally to the federal budget and national debt. To demonstrate how the national debt is growing, Ben brought programmable calculators to his presentation and had class members run a formula that kept a running tab of how much the national debt increases per minute. Ben said he would do a similar demonstration with his high school students.

When Ben was asked about curriculum integration at the end of the summer course, his definition was similar to the one he had given at the beginning with one striking addition. Ben still described integration as "taking subjects and mixing them together" but he also added "to show how our learning is connected to other subjects in real life." The theme of "real life" learning also came through clearly in Ben's national debt unit. As described, Ben planned to begin the unit with a topic he felt would be most relevant and most useful for students in their lives outside of school, which is personal debt. Ben's commitment to relevant and meaningful learning is at the heart of the understanding he constructed about curriculum integration during our summer course. This commitment was still very strong when Ben was observed and interviewed six months later during the implementation phase of his national debt unit.

The day that Ben was observed, he was in the middle of a series of lessons on personal debt. The focus on the day of the visit was credit card debt and interest rates on credit cards and other kinds of loans. The day before, Ben had given students a short article on credit card debt to read and a series of questions to answer. Some of the questions related to the article directly, but some were asked to assess the student's prior understanding of credit card debt and interest rates. An example of one the questions was "Put the following loans in order from the highest to lowest interest rate you would pay on each one: A) car loan; B) credit card debt; C) loan for a computer; D) home loan." The day of the lesson, Ben asked students to work in groups of four to share their individual answers to the questions and then to come to a group consensus about the answers. Ben asked students to write their group answers on a blank overhead to share with the whole class. While the students worked together, Ben circulated around the class to address concerns and to probe

student thinking. Ben said he was especially interested in the reasoning the students used to determine what kind of loans have the highest and lowest interest rate. Students were heard making a variety of speculations about interest rates. Comments ranged from, "a home loan is the biggest so it would have the highest interest rate" to "a home loan is the most necessary kind of loan, so it would have the lowest interest rate."

The majority of the time during this lesson was spent with students involved in small group discussions about debt and interest rates, with about ten minutes at the end devoted to sharing group findings. As each group shared, Ben recorded answers on a chart on the board so that students could make comparisons between groups. By the time each group had presented their answers, the class period ended and Ben had very little time to go over the chart. He told students that this would be their starting point the following day.

The first comment Ben made to the observer after the lesson ended, before the tape recorder had even been turned on, was about the change in his role as teacher. He said,

> ".....this format, being a math instructor, is really difficult because with math instruction, its generally, you're kind of leading everything, directing everything. Now I've become kind of the person facilitating, being on the side watching things happen. And it's , it's a strange feeling."

Because of the smoothness of the lesson, the observer was surprised to learn that Ben had not tried using this small group format until he began his national debt unit the previous week. Although Ben said he was still getting used to his changing role in the classroom, he was very pleased with the results. Ben believed that the biggest payoff to allowing students to work together to solve problems and answer questions was in their learning. He stated,

> "I think that a lot of what they say to each other is a lot of learning..... and a lot of real good learning because you'll find more often than not that they, because it's a friend, it's a person they trust their opinion really highly, [they trust them] just as as they would trust an authority figure."

Ben said he believed that the students themselves were very aware of the extent of their learning during the personal debt portion of his national debt unit. What made the biggest impression on him, he said, was

the ways in which they were relating the class activities to their lives outside of school. He explained:

> "I have had a number of students mention things about how important these ideas are, our talking about loans, talking about credit cards, talking about things like this. There's one kid who brought up that his sister has been having problems because someone got hold of her credit card number and so we talked about problems with credit card fraud and the issue of what happens, what are you responsible for?"

When asked how the implementation of his project was similar to or different from the plan he had developed during the summer course, Ben responded,

> "I found I overestimated the amount of time I'd have. I certainly had more material there over the summer than [what] I was actually able to cover in the classroom."

Ben went on to explain that the concepts covered in his unit remained essentially the same as the ones he had developed during the summer, but that he needed to cut some of the activities. Primarily, he said he decided not to invite in guest speakers from the community to give their perspective on the unit topic. For example, he originally had planned to invite a local loan officer from the bank to come into his class to talk about different kinds of loans, but decided he didn't have the time.

The problem of time was mentioned again by Ben when asked what school factors either facilitated or impeded the implementation of his project. He said he felt constrained by the time limits of a fifty minute class period, which resulted in having to cut activities from his unit. Although Ben was frustrated by the lack of time, he was hopeful that a solution to his problem was in the works. He explained that the school district's administrators were discussing a move to block scheduling, which Ben believed was an important change in the school's operation. Ben said,

> "...the more I hear about [block scheduling] the more I see that it's directed at what we're hoping to get from this, and that's to integrate, to work together and build from that. And that is what block scheduling does, it allows better communication because you're working together, you have more time, and you can do more things."

Ben said he had learned firsthand of the benefits of collaborating with another teacher while planning and implementing his national debt unit. Ben shared that a civics teacher in the school had provided a great deal of support through sharing ideas and materials on budgeting, which Ben said he planned to use in an upcoming lesson. When asked if he had previously collaborated with the civics teacher, Ben replied, "[No] that was all new this year." Ben said he believed that the collaboration was a result of his developing and implementing the integrated national debt unit.

Ben's closing comments during the interview returned to the two ideas from the summer course that seemed to resonate most for him. One had to do with making learning relevant and meaningful to students by building on what they already know, which Ben described as "[building] from what there is rather than what you think there should be." The other idea that Ben highlighted in his closing remarks was how his understanding of integration had been enriched through teaching his national debt unit. He said,

> "I think the more that you do it [integration], the more you get a better idea of the whole picture, that it all fits together. It isn't just English, science, social studies, math -- it's education."